

Application No. 09/892,166
Response dated January 31, 2006
Reply to Office Action of November 3, 2005

REMARKS:

Status Of Claims

Claims 1-17 were previously and are currently pending in the application with claims 1, 9, and 11 being independent.

Office Action

In the office action, the Examiner rejected claims 1, 2, 4-6, 11, 14, 15, and 17 under 35 U.S.C 102(b) as being anticipated by Abe, U.S. Patent No. 5,781,588. The Examiner also rejected claims 7 and 8 under 35 U.S.C. 103(a) as being unpatentable over Abe in view of Ueunten, U.S. Patent No. 5,412,309. The Examiner also rejected claims 3, 9, and 16 under 35 U.S.C. 103(a) as being unpatentable over Abe in view of Schrader, U.S. Patent No. 3,750,168. The Examiner also rejected claims 10 and 13 under 35 U.S.C. 103(a) as being unpatentable over Abe in view of Holloway, U.S. Patent No. 6,747,996. The Examiner also rejected claim 12 under 35 U.S.C. 103(a) as being unpatentable over Abe in view of Schrader in further view of McGibney, U.S. Patent No. 6,594,273. Applicant respectfully submits that the currently pending claims distinguish the present invention from Abe, Ueunten, Schrader, Holloway, McGibney, and the other prior art references of record, taken alone or in combination with each other.

Specifically, claim 1 recites "receiving a self-generated broadcast signal". As previously noted, ¶ 19 of the present specification states "the bit detection threshold adjustment process receives a self-generated broadcast signal, such as an "ownship"

Application No. 09/892,166
Response dated January 31, 2006
Reply to Office Action of November 3, 2005

broadcast message being transmitted by an aircraft.... As is known by those of ordinary skill in the art, the term "ownship broadcast messages" (i.e., self-generated broadcast signals) refers to the signal that is transmitted by an aircraft". Also as previously noted, ¶ 21 if the present specification states "the bit detection adjustment process is limited to "ownship" broadcast messages and is not undertaken when the receiver receives off-air signals (i.e., broadcast messages from other entities)". Thus, the terms "self-generated broadcast signal" and "ownship broadcast signal" are synonymous and both relate to generating a broadcast signal onboard an aircraft and then receiving that "self-generated broadcast signal" onboard that same aircraft. Those terms, as defined throughout the specification and used in the claims, explicitly do not encompass receiving signals generated by another aircraft. The claim as a whole may cover devices which receive both self-generated signals and signals generated by another aircraft, but a device which does not receive a self-generated broadcast signal does not anticipate or render obvious claim 1 of the present application.

In contrast, Abe does not disclose generating a broadcast signal, and therefore simply cannot disclose "receiving a self-generated broadcast signal". Rather, Abe discloses a receiver that simply receives signals broadcast from other devices aboard other aircraft. Therefore, clearly fails to teach "receiving a self-generated broadcast signal", as claimed in claim 1. In fact, on page 6 of the present Office Action, the Examiner acknowledges "[t]hat the signal is an ownship signal is missing from Abe". As a result, Abe simply fails to disclose, suggest, or make obvious "receiving a self-generated broadcast

Application No. 09/892,166
Response dated January 31, 2006
Reply to Office Action of November 3, 2005

signal", as claimed in claim 1.

Claim 9 recites "receiving an analog ownship broadcast signal". In contrast, as discussed above and acknowledged by the Examiner, Abe simply fails to teach this limitation. However, the Examiner mistakenly points to column 6 of Schrader as filling that void. Specifically, Schrader teaches use of a filter that passes signals received from external aircraft while blocking transponder output frequencies "in order that succeeding stages of the transponder are not overdriven by the ownship transmitter signal". Therefore, Schrader rather clearly teaches blocking, rather than receiving, ownship transmission signals. Thus, Schrader actually teaches away from "receiving an analog ownship broadcast signal", much less actually doing something with that received ownship signal, such as those steps recited in the other limitations of claim 9. As a result, no combination of Abe and/or Schrader discloses, suggests, or makes obvious "receiving an analog ownship broadcast signal", much less in combination with the other limitations of claim 9.

Claim 11 recites "a positive peak detector", "a negative ... peak detector", "a calculation task unit in data communication with the negative and positive peak detectors that calculates a peak-to-peak deviation to formulate a bit detection threshold value", and "a bit detector in data communication with the calculation task unit and in electrical communication with the A/D converter that receives the digitized signal from the A/D converter and the bit detection threshold value from the calculation task unit for the purpose of converting the digitized signal to a digitized bit stream of data". Thus, the device of claim 11 has both a positive peak detector and a negative peak detector. The

Application No. 09/892,168
Response dated January 31, 2005
Reply to Office Action of November 3, 2005

calculation unit determines a threshold based on a peak-to-peak deviation, as detected by the positive and negative peak detectors. Finally, the bit detector detects bits in the incoming bit stream, based on the threshold.

In contrast, Abe fails to disclose both a positive peak detector and a negative peak detector. Rather, throughout his specification, Abe discloses a mean peak detector. Therefore, Abe is looking for mean peak, rather than a positive peak or a negative peak.

Furthermore, Abe is not concerned with any peak-to-peak deviation. In fact, Abe's deviation primarily relates to a deviation between a local oscillator frequency and a desired frequency, and is used in trying to tune the local oscillator to the desired frequency. While Abe does disclose adjusting a threshold voltage according to a frequency deviation, that deviation is clearly not a "peak-to-peak deviation", as claimed in claim 11. Rather, that deviation is in relation to an expected frequency, such that the deviation leads to a higher than expected bit error rate (BER). As a result, Abe simply fails to disclose, suggest, or make obvious "a positive peak detector", "a negative ... peak detector", "a calculation task unit in data communication with the negative and positive peak detectors that calculates a peak-to-peak deviation to formulate a bit detection threshold value", and "a bit detector in data communication with the calculation task unit and in electrical communication with the A/D converter that receives the digitized signal from the A/D converter and the bit detection threshold value from the calculation task unit for the purpose of converting the digitized signal to a digitized bit stream of data", as claimed in claim 11.

Application No. 09/692,166
Response dated January 31, 2006
Reply to Office Action of November 3, 2005

The remaining claims all depend directly or indirectly from independent claims 1, 9, or 11, and are therefore also allowable.

Any additional fee which is due in connection with this amendment should be applied against our Deposit Account No. 501-791. In view of the foregoing, a Notice of Allowance appears to be in order and such is courteously solicited.

Respectfully submitted,

By:



David L. Terrell, Reg. No. 50,576
Garmin International, Inc.
1200 East 151st Street
Olathe, KS 66062
(913) 397-8200
(913) 397-9079 (Fax)